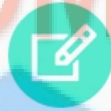
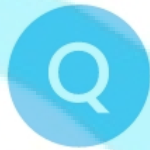


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QUIZZES

Practice test 1 Unit 12



10 Questions



7 min

Topics

The atom to include protons, neutrons and electrons. (Atomic Nucleus), Spontaneous and random nuclear decay/ the Law of Radioactive Decay

Start Quiz

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

06 : 59



1/10



7 min



Hint

Q : How many neutrons are there in the nuclide Zn^{66}_{30} ?

A

22

B

30

C

36

D

66

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 56



2/10



7 min



Hint

Q : The number of neutrons present in the nucleus is given by

A

$$N = (Z - A)$$

B

$$N = (A - Z)$$

C

$$A = (Z - N)$$

D

$$Z = (N - A)$$

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 54



3/10



7 min



Hint

Q : Both Xenon and cesium each have

A

13 isotopes

B

34 isotopes

C

36 isotopes

D

10 isotopes

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 52



4/10



7 min



Hint

Q : The number of neutrons in the nucleus of ${}_3\text{Li}^4$ are



4



3



1



7

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 50



5/10



7 min



Hint

Q : Neutron and proton are commonly known as

A

Nucleon

B

Meson

C

Boson

D

Quartz

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

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4

5

6

7

06 : 48



6/10



7 min



Hint

Q :

Radioactivity is a _____

- (I) Spontaneous activity
- (II) Chemical property
- (III) Self disintegration property

Which of above statements is/are correct?

A

I & II

B

II & III

C

III & I

D

I, II & III

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 46



7/10



7 min



Hint

Q : Which of the following nuclear decay occur due to nuclear transition

A

α decay

B

γ decay

C

β decay

D

All of these

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 43



8/10



7 min



Hint

Q : An α -particle is emitted from ${}_{88}\text{Ra}^{226}$. What is the mass and atomic number of the daughter nucleus?

A

Mass number

Atomic number

224
86

Atomic

B

Mass number

Atomic number

220
80

C

Mass number

Atomic number

222
86

D

Mass number

Atomic number

226
87

4

5

6

7

8

9

10

06 : 40



9/10



7 min



Hint

Q : β -rays, emitted from a radioactive material, are known as

A

neutral particles

B

electrons orbiting around the nucleus

C

charged particles emitted by nucleus

D

electromagnetic radiations

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 39



10/10



7 min



Hint

Q : Strontium-90 is used as _____

A

β -particle source

B

α -particle source

C

γ -rays source

D

Neutron source

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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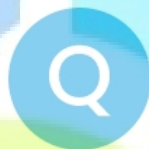
9

10



QUIZ RESULT

Practice test 1 Unit 12



10



7 min



03-May-2021



0 sec



0/10



0.0%

SAEED MDCAT

Result Detail

SAEED MDCAT TEAM



SAEEDMDCAT





Practice test 1 Unit 12



Correct



Unattempted



Incorrect



1/10

Q : How many neutrons are there in the nuclide Zn^{66}_{30} ?

A

22

B

30

C

36

D

66

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Correct



Unattempted



Incorrect



2/10

Q : The number of neutrons present in the nucleus is given by



$$N = (Z - A)$$



$$N = (A - Z)$$



$$A = (Z - N)$$



$$Z = (N - A)$$

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



Practice test 1 Unit 12



Correct



Unattempted



Incorrect



3/10

Q : Both Xenon and cesium each have

A

13 isotopes

B

34 isotopes

C

36 isotopes

D

10 isotopes

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 1 Unit 12



Correct



Unattempted



Incorrect



4/10

Q : The number of neutrons in the nucleus of ${}^4_3\text{Li}$ are



4



3



1



7

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 1 Unit 12



Correct



Unattempted



Incorrect



5/10

Q : Neutron and proton are commonly known as



Nucleon



Meson



Boson



Quartz

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 1 Unit 12



Correct



Unattempted



Incorrect



6/10

Q :

Radioactivity is a _____

- (I) Spontaneous activity
- (II) Chemical property
- (III) Self disintegration property

Which of above statements is/are correct?

A

I & II

B

II & III

C

III & I

D

I, II & III

1

2

3

4

5

6

7



Correct



Unattempted



Incorrect



7/10

Q : Which of the following nuclear decay occur due to nuclear transition



α decay



γ decay



β decay



All of these

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



Practice test 1 Unit 12



Correct



Unattempted



Incorrect



8/10

Q : An α -particle is emitted from ${}_{88}\text{Ra}^{226}$. What is the mass and atomic number of the daughter nucleus?

Mass number

Atomic

A

number

224
86

B

Mass number
Atomic number

220
80

C

Mass number
Atomic number

222
86

D

Mass number
Atomic number

226
87

4

5

6

7

8

9

10



Correct



Unattempted



Incorrect



9/10

Q : β -rays, emitted from a radioactive material, are known as

A

neutral particles

B

electrons orbiting around the nucleus

C

charged particles emitted by nucleus

D

electromagnetic radiations

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



Practice test 1 Unit 12



Correct



Unattempted



Incorrect



10/10

Q : Strontium-90 is used as _____

A

β -particle source

B

α -particle source

C

γ -rays source

D

Neutron source

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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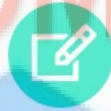
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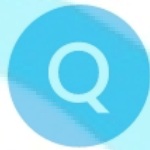
10

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QUIZZES

Practice test 2 Unit 12



10 Questions



7 min

Topics

Half Life and rate of decay

Start Quiz

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

06 : 59



1/10



7 min



Hint

Q : A radioactive substance is at $t=0$, the number of atoms is 8×10^4 . Its half-life period is 3 years. The number of atoms 1×10^4 will remain after interval



19 years



24 years



9 years



6 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 57



2/10



7 min



Hint

Q : The radioactivity of a certain radioactive element drops to $1/64$ of its initial value in 30 seconds. Its half-life is



4 seconds



3 seconds



5 seconds



2 seconds

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 55



3/10



7 min



Hint

Q : The decay constant of radium is 4.28×10^{-4} per year. Its half-life will be

A

1240 years

B

2000 years

C

1620 years

D

63 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 54



4/10



7 min



Hint

Q : Half-life of a radioactive substance is T . The time taken for all the nuclei to disintegrate will be



$2T$



uncertain



$4T$



T^2

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 51



5/10



7 min



Hint

Q : The activity of a radioactive sample is 1.6 curie and its half life is 2.5 days. Its activity after 10 days will be:



0.8 curie



0.4 Curie



0.1 curie



0.16 Curie

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 48



6/10



7 min



Hint

Q : The half life of radium-226 is

A

1620 years

B

1920 years

C

19.20 years

D

19.23 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 47



7/10



7 min



Hint

Q : The ratio of the fraction of decaying atoms per unit time is called

A

half life

B

decay time

C

decay constant

D

decay element

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 44



8/10



7 min



Hint

Q : The S I unit of decay constant is



m



m^{-1}



s^{-1}



ms^{-1}

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 42



9/10



7 min



Hint

Q : Tungsten-176 has a half-life of 2.5 hours. After how many hours will the disintegration rate of a

tungsten-176 sample drop to $\frac{1}{16}$ its initial value?



5



8.3



10



13

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 41



10/10



7 min



Hint

Q : The half life of a certain element is 3.5 days at S.T.P .If the temperature is doubled and pressure is reduced to half then half life of the same element will be



1.75 days



7 days



3.5 days



14 days

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

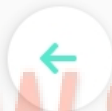
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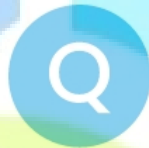
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10



QUIZ RESULT

Practice test 2 Unit 12



10



7 min



03-May-2021



0 sec



0/10



0.0%

SAEED MDCAT

Result Detail

SAEED MDCAT TEAM



SAEEDMDCAT





Practice test 2 Unit 12



Correct



Unattempted



Incorrect



1/10

Q : A radioactive substance is at $t=0$, the number of atoms is 8×10^4 . Its half-life period is 3 years. The number of atoms 1×10^4 will remain after interval

A

19 years

B

24 years

C

9 years

D

6 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 2 Unit 12



Correct



Unattempted



Incorrect



2/10

Q : The radioactivity of a certain radioactive element drops to $1/64$ of its initial value in 30 seconds. Its half-life is

A

4 seconds

B

3 seconds

C

5 seconds

D

2 seconds

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 2 Unit 12



Correct



Unattempted



Incorrect



3/10

Q : The decay constant of radium is 4.28×10^{-4} per year. Its half-life will be

A

1240 years

B

2000 years

C

1620 years

D

63 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 2 Unit 12



Correct



Unattempted



Incorrect



4/10

Q : Half-life of a radioactive substance is T . The time taken for all the nuclei to disintegrate will be



$2T$



uncertain



$4T$



T^2

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

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4

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6

7



Practice test 2 Unit 12



Correct



Unattempted



Incorrect



5/10

Q : The activity of a radioactive sample is 1.6 curie and its half life is 2.5 days. Its activity after 10 days will be:

A

0.8 curie

B

0.4 Curie

C

0.1 curie

D

0.16 Curie

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 2 Unit 12



Correct



Unattempted



Incorrect



6/10

Q : The half life of radium-226 is

A

1620 years

B

1920 years

C

19.20 years

D

19.23 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 2 Unit 12



Correct



Unattempted



Incorrect



7/10

Q : The ratio of the fraction of decaying atoms per unit time is called



half life



decay time



decay constant



decay element

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 2 Unit 12



Correct



Unattempted



Incorrect



8/10

Q : The S I unit of decay constant is



m



m^{-1}



s^{-1}



ms^{-1}

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



Practice test 2 Unit 12



Correct



Unattempted



Incorrect



9/10

Q : Tungsten-176 has a half-life of 2.5 hours. After how many hours will the disintegration rate of a

tungsten-176 sample drop to $\frac{1}{16}$ its initial value?

A

5

B

8.3

C

10

D

13

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



Practice test 2 Unit 12



Correct



Unattempted



Incorrect



10/10

Q : The half life of a certain element is 3.5 days at S.T.P .If the temperature is doubled and pressure is reduced to half then half life of the same element will be

A

1.75 days

B

7 days

C

3.5 days

D

14 days

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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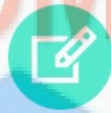
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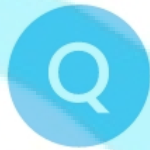
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QUIZZES

Practice test 3 Unit 12



10 Questions



7 min

Topics

Half Life and rate of decay, Biological effects of Radiation

Start Quiz

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

06 : 59



1/10



7 min



Hint

Q : The cosmic radiation consists of

A

high energy particles

B

electromagnetic radiation

C

both a & b

D

low energy charged particles

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 57



2/10



7 min



Hint

Q : A sample contains 16 gm of a radioactive material, the half life of which is two days. After 32 days, the amount of radioactive material left in the sample is



14gm



less than 1 mg



12gm



1gm

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 55



3/10



7 min



Hint

Q : The decay constant of a radioactive element is 0.01 per second. Its half-life period is

A

0.693 sec

B

69.3 sec

C

6.93 sec

D

693 sec

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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7

06 : 53



4/10

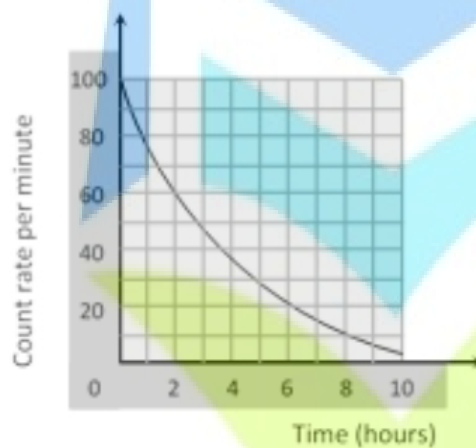


7 min



Hint

Q : The count rate of 10 g of radioactive material was measured at different times and this has been shown in the figure. The half-life of material is



A

2 hrs

B

4 hrs

C

5 hrs

D

3 hrs



SAEEDMDCAT

1

2

3

4

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6

7

06 : 51



5/10



7 min



Hint

Q :

The half-life of the isotope $^{24}_{11}\text{Na}$ is 15 hours. How much times does it take for $\frac{7}{8}$ th of a sample of this isotope to decay?

A

75 h

B

65 h

C

55 h

D

45 h

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 49



6/10



7 min



Hint

Q : What fraction of a radioactive material will get disintegrated in a period of two half-lives?

A

whole

B

half

C

one-fourth

D

three-fourth

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 48



7/10



7 min



Hint

Q : The half life of radon is



4 days



4 months



4 years



4 weeks

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 45



8/10



7 min



Hint

Q : Half life of uranoium-239 is

A

23.5 days

B

23.5 minutes

C

23.5 seconds

D

23.5 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 43



9/10



7 min



Hint

Q : The radioactive element has the half life of 1600 years, after 6400 years what amount will remain undecay



1/16



1/8



1/2



1/4

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 42



10/10



7 min



Hint

Q : When an animal dies each gram of carbon in its body emits about 16b particles each minute. Each gram of carbon from same animal remains is found to emit 4b particles per minute. How old is the animal (Half life of radioactive carbon is 6000 years)



3000 years



6000 years



12000 years



18000 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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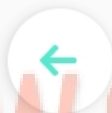
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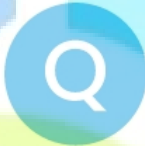
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10



QUIZ RESULT

Practice test 3 Unit 12



10



7 min



03-May-2021



0 sec



0/10



0.0%

SAEED MDCAT

Result Detail

SAEED MDCAT TEAM



SAEEDMDCAT





Practice test 3 Unit 12



Correct



Unattempted



Incorrect



1/10

Q : The cosmic radiation consists of

A

high energy particles

B

electromagnetic radiation

C

both a & b

D

low energy charged particles

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 3 Unit 12



Correct



Unattempted



Incorrect



2/10

Q : A sample contains 16 gm of a radioactive material, the half life of which is two days. After 32 days, the amount of radioactive material left in the sample is

A

14gm

B

less than 1 mg

C

12gm

D

1gm

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

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5

6

7



Practice test 3 Unit 12



Correct



Unattempted



Incorrect



3/10

Q : The decay constant of a radioactive element is 0.01 per second. Its half-life period is

A

0.693 sec

B

69.3 sec

C

6.93 sec

D

693 sec

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

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6

7



Correct



Unattempted

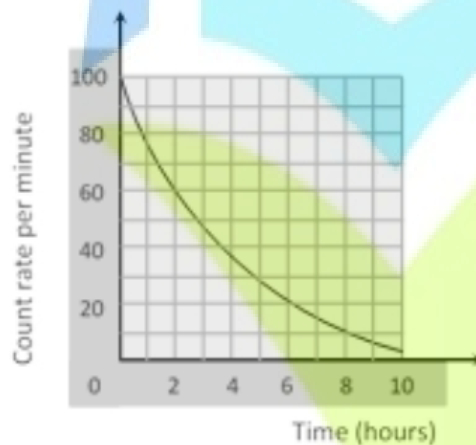


Incorrect



4/10

Q : The count rate of 10 g of radioactive material was measured at different times and this has been shown in the figure. The half-life of material is



A

2 hrs

B

4 hrs

C

5 hrs

D

3 hrs



Practice test 3 Unit 12



Correct



Unattempted



Incorrect



5/10

Q:

The half-life of the isotope $^{24}_{11}\text{Na}$ is 15 hours. How much times does it take for $\frac{7}{8}$ th of a sample of this isotope to decay?

A

75 h

B

65 h

C

55 h

D

45 h

1

2

3

4

5

6

7



Practice test 3 Unit 12



Correct



Unattempted



Incorrect



6/10

Q : What fraction of a radioactive material will get disintegrated in a period of two half-lives?



whole



half



one-fourth



three-fourth

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Practice test 3 Unit 12



Correct



Unattempted



Incorrect



7/10

Q : The half life of radon is



4 days



4 months



4 years



4 weeks

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

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6

7



Practice test 3 Unit 12



Correct



Unattempted



Incorrect



8/10

Q : Half life of uranoium-239 is

A

23.5 days

B

23.5 minutes

C

23.5 seconds

D

23.5 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

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9

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Practice test 3 Unit 12



Correct



Unattempted



Incorrect



9/10

Q : The radioactive element has the half life of 1600 years, after 6400 years what amount will remain undecay



1/16



1/8



1/2



1/4

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

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9

10



Practice test 3 Unit 12



Correct



Unattempted



Incorrect



10/10

Q : When an animal dies each gram of carbon in its body emits about $16b$ particles each minute. Each gram of carbon from same animal remains is found to emit $4b$ particles per minute. How old is the animal (Half life of radioactive carbon is 6000 years)

A

3000 years

B

6000 years

C

12000 years

D

18000 years

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

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6

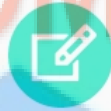
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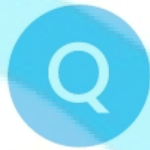
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QUIZZES

Practice test 4 Unit 11



10 Questions



7 min

Topics

Production of X-rays and Characteristics X-rays,
Contineous X-rays (Braking X-rays)

Start Quiz

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

06 : 59



1/10



7 min



Hint

Q : The penetrating power of X- rays depends on their

A

Applied voltage

B

Filament current

C

Source

D

All of the above

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 57



2/10



7 min



Hint

Q : The transition of inner shell electrons in heavy atoms gives rise to the emission of

A

x-rays

B

high energy photons

C

both a and b

D

none of these

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 55



3/10



7 min



Hint

Q : In continuous x-ray spectrum when the electrons lose all their K.E in the first collision, the K.E is expressed as

A

$$\text{K.E} = hf_{\min}$$

B

$$\text{K.E} = h\lambda_{\max}$$

C

$$\text{K.E} = hf_{\max}$$

D

$$\text{K.E} = h\lambda_{\min}$$

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 53



4/10



7 min



Hint

Q :

The continuous X-rays spectrum produced by an X-ray machine at constant voltage has

A

A maximum wavelength

B

A minimum wavelength

C

A single wavelength

D

A minimum frequency

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 51



5/10



7 min



Hint

Q :

The minimum frequency f of continuous X-rays is related to the applied potential difference V as



$$f \propto \sqrt{V}$$



$$f \propto V$$



$$f \propto V^{3/2}$$



$$v \propto V^2$$

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 49



6/10



7 min



Hint

Q :

If V be the accelerating voltage, then the maximum frequency of continuous X-rays is given by

A

eh/V

B

hV/e

C

eV/h

D

h/eV

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 48



7/10



7 min



Hint

Q :

Which of the following is accompanied by the characteristic X-ray emission

A

α -particle emission

B

Electron emission

C

Positron emission

D

K-electron capture

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 46



8/10



7 min



Hint

Q :

When cathode rays strike a metal target of high melting point with very high velocity, then

A

X-rays are produced

B

alpha-rays are produced

C

TV waves are produced

D

Ultrasonic waves are produced

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 43



9/10



7 min



Hint

Q :

On increasing the number of electrons striking the anode of an X-ray tube, which one of the following parameters of the resulting X-rays would increase

A

Penetration power

B

Frequency

C

Wavelength

D

Intensity

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 41



10/10



7 min



Hint

Q :

Intensity of X-rays depends upon the number of



Electrons



Protons



Neutrons



Positrons

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

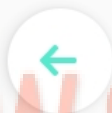
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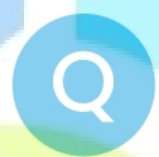
9

10



QUIZ RESULT

Practice test 4 Unit 11



10



7 min



03-May-2021



0 sec



0/10



0.0%

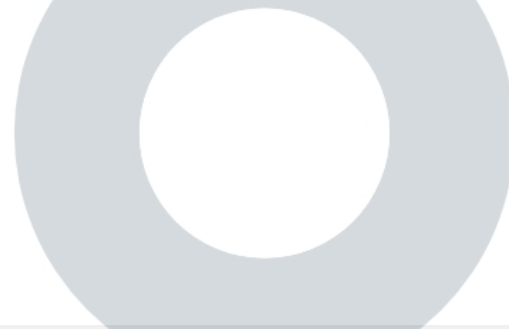
SAEED MDCAT

Result Detail

SAEED MDCAT TEAM



SAEEDMDCAT





Practice test 4 Unit 11



Correct



Unattempted



Incorrect



1/10

Q : The penetrating power of X- rays depends on their



Applied voltage



Filament current



Source



All of the above

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

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7



Practice test 4 Unit 11



Correct



Unattempted



Incorrect



2/10

Q : The transition of inner shell electrons in heavy atoms gives rise to the emission of

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high energy photons

C

both a and b

D

none of these

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

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Practice test 4 Unit 11



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Unattempted



Incorrect



3/10

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$$K.E = h\lambda_{\max}$$

C

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D

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SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

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Correct



Unattempted



Incorrect



4/10

Q :

The continuous X-rays spectrum produced by an X-ray machine at constant voltage has

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A maximum wavelength

B

A minimum wavelength

C

A single wavelength

D

A minimum frequency

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



Practice test 4 Unit 11



Correct



Unattempted



Incorrect



5/10

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C

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D

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7



Practice test 4 Unit 11



Correct



Unattempted



Incorrect



6/10

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eh/V



hV/e



eV/h



h/eV

1

2

3

4

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Practice test 4 Unit 11



Correct



Unattempted



Incorrect



7/10

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Which of the following is accompanied by the characteristic X-ray emission

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B

Electron emission

C

Positron emission

D

K-electron capture

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4

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Practice test 4 Unit 11



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Unattempted



Incorrect



8/10

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B

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C

TV waves are produced

D

Ultrasonic waves are produced



Practice test 4 Unit 11



Correct



Unattempted



Incorrect



9/10

Q :

On increasing the number of electrons striking the anode of an X-ray tube, which one of the following parameters of the resulting X-rays would increase

A

Penetration power

B

Frequency

C

Wavelength

D

Intensity

4

5

6

7

8

9

10



Practice test 4 Unit 11



Correct



Unattempted



Incorrect



10/10

Q:

Intensity of X-rays depends upon the number of

A

Electrons

B

Protons

C

Neutrons

D

Positrons

4

5

6

7

8

9

10